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U.S. Patent Application Inventor: Gary R. Rogers

I claim:

A multi axis fiber optic ribbon, comprising:

a central portion; and

a plurality of removable extensions secured to and extending from said central portion, at least one of said extensions containing at least one optical fiber;

wherein at least one of said extensions extends from said central portion along an axis different from at least one other extension.

- The multi axis fiber optic ribbon according to claim 1, wherein at least one of said central portion and said plurality of extensions are made from a fiber optic ribbon matrix material.
- The multi axis fiber optic ribbon according to claim 2, wherein said at least
 one central portion and said plurality of extensions are made from the same fiber optic
 ribbon matrix material.
 - 4. The multi axis fiber optic ribbon according to claim 1, wherein at least one of said extensions project along a substantially straight line from said central portion.
- The multi axis fiber optic ribbon according to claim 1, further comprising means for separating said extensions from said central portion.

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- 6. The multi axis fiber optic ribbon according to claim 1, wherein a thickness of each extension at a point where said extension contacts said central portion is less than a thickness at a point on said extension beyond said central portion.
- The multi axis fiber optic ribbon according to claim 1, wherein at least one of said extensions has means for identifying said extension.
 - 8. The multi axis fiber optic ribbon according to claim 1, wherein at least one of said extensions has one of a bar code, alphanumeric, and color code identifier for identification of said extension.
 - 9. The multi axis fiber optic ribbon according to claim 1, wherein each of said plurality of extensions has one of a bar code, alphanumeric, and color code identifier for identification of each of said extension, wherein each identifier for each extension is different from any other identifier.
 - 10. The multi axis fiber optic ribbon according to claim 1, wherein at least one of said central portion and said extensions comprises at least one strength member.
 - 11. The multi-axis fiber optic ribbon according to claim 1, wherein said central portion and each of said extensions comprises at least one strength member.
 - 12. A ribbon for optical fibers, comprising:

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a central core:

a plurality of extensions situated radially around said central core, each extension having two ends, one end removably attached to said central core, and the second end extending outward from said core;

wherein at least one of said extensions contains one or more optical fibers.

- 13. The multi axis fiber optic ribbon according to claim 12, wherein at least one of said central core and plurality of extensions are made from a fiber optic ribbon matrix material, or an over-coated, dissimilar strength member.
- 14. The multi axis fiber optic ribbon according to claim 13, wherein said at least one central core and said plurality of extensions are made from the same fiber optic ribbon matrix material.
- 15. The multi axis fiber optic ribbon according to claim 12, wherein at least one of said extensions project along a substantially straight line from said central core.
- 16. The multi axis fiber optic ribbon according to claim 12, further comprising means for separating said extensions from said central core.
- 17. The multi axis fiber optic ribbon according to claim 12, wherein a thickness of each extension at a point where said extension contacts said central core is less than a thickness at a point on said extension beyond said central core.

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- 18. The multi axis fiber optic ribbon according to claim 12, wherein at least one of said extensions has means for identifying said extension.
- 5 19. The multi axis fiber optic ribbon according to claim 12, wherein at least one of said extensions has one of a bar code, alphanumeric, and color code identifier for identification of said extension.
 - 20. The multi axis fiber optic ribbon according to claim 12, wherein each of said plurality of extensions has one of a bar code, alphanumeric, and color code identifier for identification of each of said extension, wherein each identifier for each extension is different from any other identifier.
 - 21. The multi axis fiber optic ribbon according to claim 12, wherein at least one of said central core and said extensions comprises at least one strength member.
 - 22. The multi-axis fiber optic ribbon according to claim 12, wherein said central core and each of said extensions comprises at least one strength member.
- 20 23. A fiber optic cable; comprising:

an outer jacket; and

a plurality of multi axis ribbons, said multi axis ribbons comprising:

a central core;

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a plurality of extensions situated radially around said central core, each extension having two ends, one end removably attached to said central core, and the second end extending outward from said core;

wherein at least one of said extensions contains one or more optical fibers.

24. The fiber optic cable according to claim 23, wherein at least two of said plurality of multi axis ribbons are intertwined with each other such that a first one of said two ribbons extends into a space created by at least two of said extensions on a second of said two ribbons.